

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NE-09-AD; Amendment 39-13906; AD 2004-25-18]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada PT6A-60A and PT6A-65B Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Pratt & Whitney Canada (PWC) PT6A-60A and PT6A-65B turboprop engines. This AD requires replacing Woodward propeller governor assemblies, part number (P/N) 8210-212H. This AD results from six incidents during airplane acceptance flight testing where directional control of the airplane was difficult to maintain during landing. We are issuing this AD to prevent loss of directional control and damage to the airplane.

DATES: This AD becomes effective January 18, 2005.

ADDRESSES: You can get the service information identified in this AD from Pratt & Whitney Canada, 1000 Marie-Victorin, Longueuil, Quebec, Canada J4G1A1.

You may examine the AD docket, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7178; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed airworthiness directive (AD). The proposed AD applies to PWC PT6A-60A and PT6A-65B turboprop engines. We published the proposed AD in the Federal Register on June 17, 2003, (68 FR 35826). That action proposed to require replacing Woodward propeller governor assemblies, P/N 8210-212H.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Suggestion That the Solenoid-Actuated Design Is Not Hazardous

One commenter suggests that the solenoid-actuated design is not considered hazardous and will not cause "total" loss of directional control. The commenter admits that this condition will affect directional control but states, based on Raytheon Aircraft Company flight tests with one solenoid failed during certification, "at no time was directional control totally lost or any damage incurred to the aircraft."

We do not agree. Although Raytheon Aircraft Company conducted a flight test that did not result in "total" loss of control or damage to the airplane, we feel the test was flown under more controlled circumstances than those occurring in service and with knowledge that one solenoid was failed during the test. The commenter doesn't address the situation where an average pilot, experiencing this failure unexpectedly, would make the correct control responses at the correct times to prevent "total" loss of directional control and damage to the aircraft. We have not changed the AD.

Request To Add Models PT6A-60AG, PT6A-65AR, and PT6A-65R to the Applicability

The same commenter asks us to add PWC models PT6A-60AG, PT6A-65AR, and PT6A-65R to the applicability of the AD. The commenter points to the discrepancy in engine models between the proposed AD and the PWC Service Bulletin (SB) PT6A-72-13354, dated July 6, 2001.

We do not agree. Although the SB addresses both propeller governor configurations, this AD only addresses those propeller governors, P/N 8210-212H, that connect to a solenoid valve installed on an airplane. The engine models PT6A-60A and PT6A-65B are installed on airplanes operating with a solenoid valve. The other engine models, incorporating Woodward Propeller Governor, P/N 8210-212J, are installed on airplanes configured with a push-pull rod mechanism. These engine models are not affected by this AD. We have not changed the AD.

Request To Write the AD Against the Propeller Governor Rather Than the Engine

One commenter requests that the AD be written against the propeller governor rather than the engine. The commenter states that there is nothing wrong with the engine except when it is used with a particular propeller governor.

We do not agree. Even though there is nothing wrong with either the propeller governor or the engine if isolated from the aircraft system, the propeller governor design is compromised when it operates on aircraft configured with a solenoid valve. Therefore, the combined system level interaction between an aircraft level component (solenoid valve) and the engine level part (propeller governor) makes this AD action necessary. We have not changed the AD.

Request To Include Additional Aircraft to the Applicability

One commenter requests that both the Air Tractor AT-802A and the CASA C-212-DE aircraft be included in the applicability. The commenter states that the PT6A-65B engine model is installed on these aircraft.

We do not agree. While PT6A-65B engines are installed on these airplanes, the airplanes have a push-pull rod activation mechanism. This AD does not affect those engines. We have not changed the AD.

Revision 1 to PWC SB PT6A-72-13354

After we issued the NPRM, we learned that PWC issued P&WC SB No. PT6A-72-13354, Revision 1, dated July 11, 2003. This SB calls out certain PT6A-60 and PT6A-65B engines by engine serial number. We added the affected engine serial numbers to the applicability section of this AD, and changed the reference to the SB in compliance paragraph (f) to P&WC SB No. PT6A-72-13354, Revision 1, dated July 11, 2003.

Increased Labor Rate in the Costs of Compliance

After we issued the NPRM, the Office of Aviation Policy and Plans changed the average labor rate in the Costs of Compliance from \$60.00 to \$65.00. We changed the labor rate in the Costs of Compliance to \$65.00 and adjusted the total cost to operators.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously.

Costs of Compliance

There are about 73 PWC PT6A-60A and PT6A-65B turboprop engines of the affected design in the worldwide fleet. We estimate that 70 engines installed on airplanes of U.S. registry will be affected by this AD. We also estimate that it will take about 2 work hours per engine to perform the actions, and that the average labor rate is \$65 per work hour. Required parts would cost approximately \$24,228 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$1,705,060. The manufacturer informed us that it might provide the parts and labor to the operators at no cost, substantially reducing the cost impact of this rule.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 2003-NE-09-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-25-18 Pratt & Whitney Canada: Amendment 39-13906. Docket No. 2003-NE-09-AD.

Effective Date

- (a) This AD becomes effective January 18, 2005.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Pratt & Whitney Canada (PWC) PT6A-60A turboprop engines, with an engine serial number (SN) which is before and includes SN PCE-PK0425, and SNs PCE-95006 thru PCE-95828, and PT6A-65B turboprop engines, with a SN which is before and includes SN PCE-PP0062, and PCE-32001 thru PCE-32644 and all engines converted to engine model PT6A-65B, that have Woodward propeller governor assemblies, part number (P/N) 8210-212H, installed. These engines are installed on, but not limited to, Raytheon Super Beech King Air 300/350 and Raytheon Beech 1900/1900C airplanes.

Unsafe Condition

(d) This AD results from six incidents during airplane acceptance flight testing, whereby directional control of the airplane was difficult to maintain during landing. The actions specified in this AD are intended to prevent loss of directional control and damage to the airplane.

Compliance

- (e) Compliance with this AD is required as indicated, unless already done.

Removal of Woodward Propeller Governor Assemblies

(f) Replace Woodward propeller governor assemblies, P/N 8210-212H, at the next access to the governor or within six months after the effective date of this AD, whichever occurs earlier. Information on replacing the Woodward propeller governor assembly can be found in Pratt & Whitney Canada Service Bulletin No. PT6A-72-13354, Revision 1, dated July 11, 2003.

(g) After the effective date of this AD, do not install any Woodward propeller governor assembly, P/N 8210-212H, on any engine.

Alternative Methods of Compliance

(h) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) The subject of this AD is addressed in Transport Canada airworthiness directive CF-2002-02, dated January 15, 2002.

Material Incorporated by Reference

(j) None.

Issued in Burlington, Massachusetts, on December 6, 2004.
Francis A. Favara,
Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
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